



National Weather Service Preliminary Spring Flood Outlook

Jeff Zogg, Senior Hydrologist

National Weather Service – Des Moines, IA

February 11, 2021



Building a Weather-Ready Nation



Spring Flood Outlook

As of 2/8



River	Spring Flood Risk
Mississippi River above Rock River	Near Normal
Mississippi River below Rock River	Above Normal
Missouri River	Near Normal
Tributaries to Mississippi River in Iowa	Above Normal (esp. eastern Iowa)
Tributaries to Missouri River in Iowa	Below Normal

Ice jams are also a risk

Amount, frequency and extent of future precipitation will be very important

National Weather Service 2021 Spring Flood Outlook Schedule

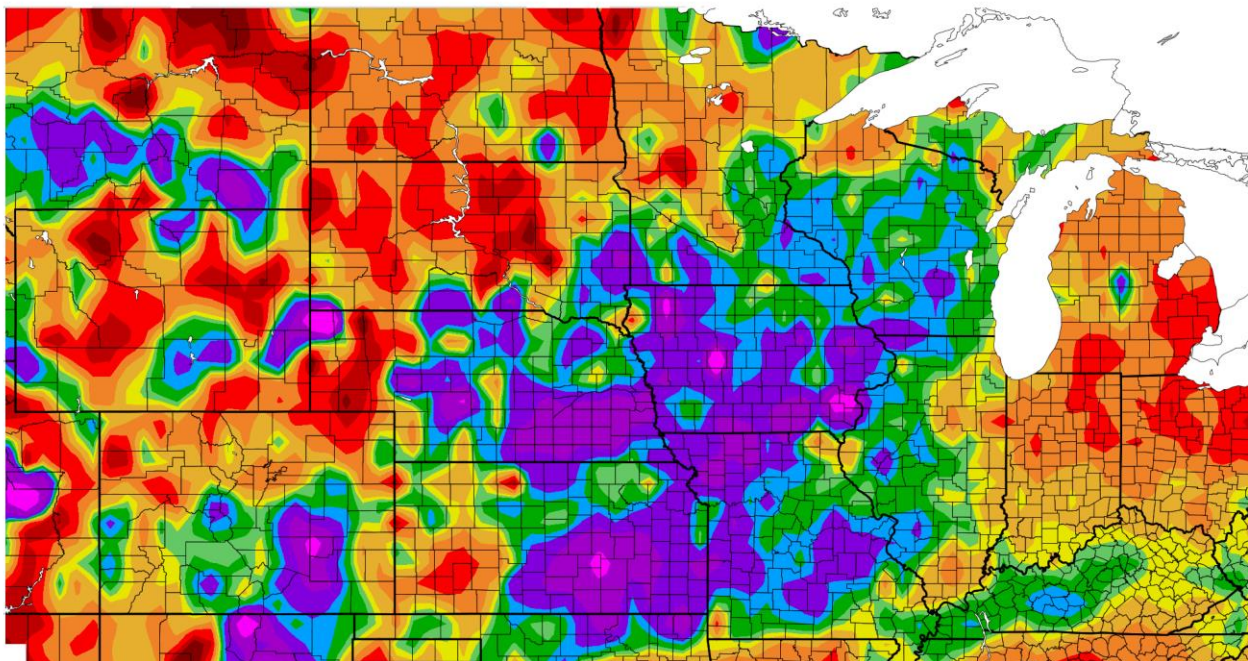
Thursday, February 11, 2021; Thursday, February 25, 2021 &
Thursday, March 11, 2020



Precipitation % of Normal

Past 30 Days

Percent of Normal Precipitation (%)
1/8/2021 – 2/6/2021



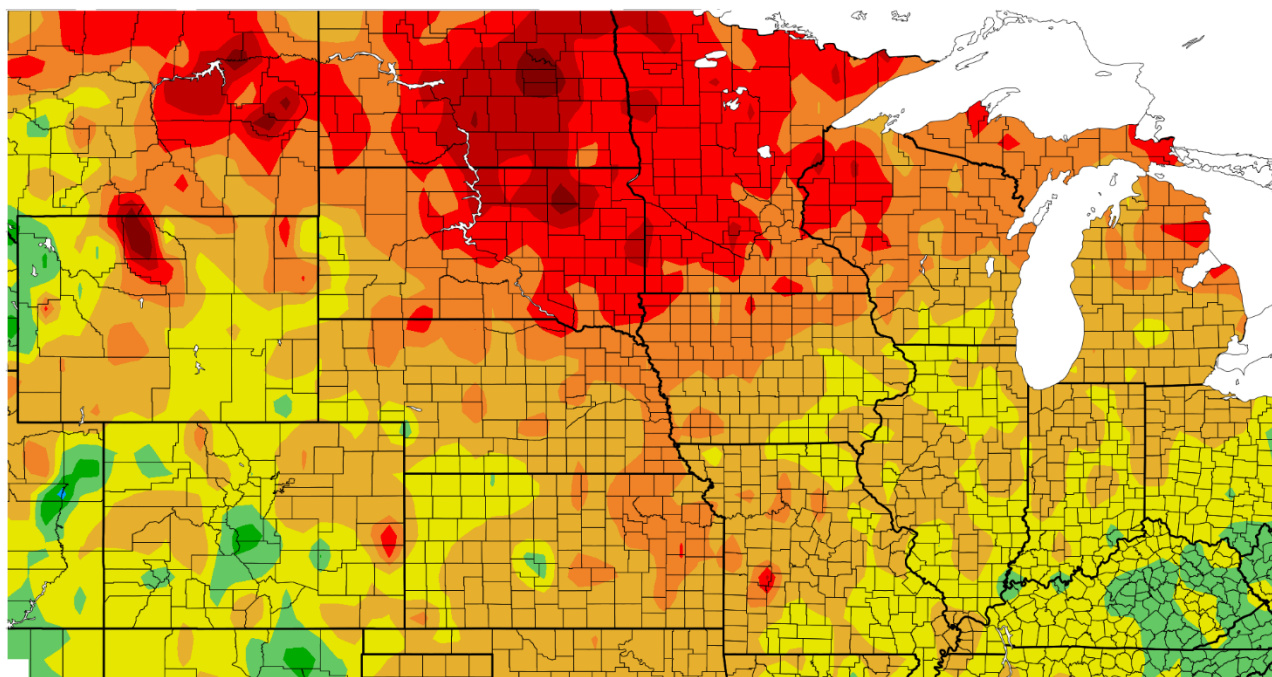
Generated 2/7/2021 at HPRCC using provisional data.

NOAA Regional Climate Centers

Temperature Dep from Normal

Past 30 Days

Departure from Normal Temperature (F)
1/8/2021 – 2/6/2021



Generated 2/7/2021 at HPRCC using provisional data.

NOAA Regional Climate Centers



Drought Monitor—Current Status

As of 2/2

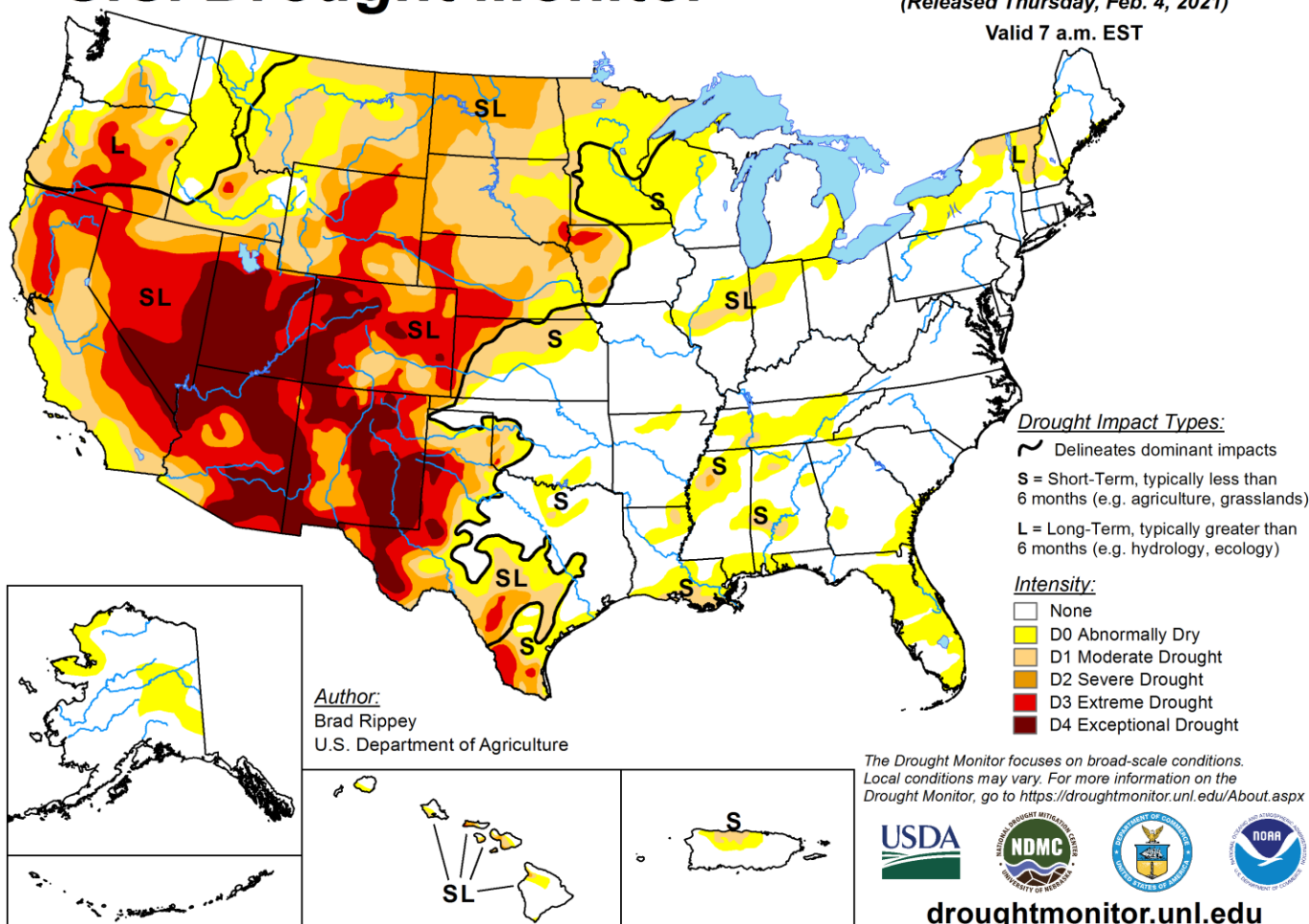


U.S. Drought Monitor

February 2, 2021

(Released Thursday, Feb. 4, 2021)

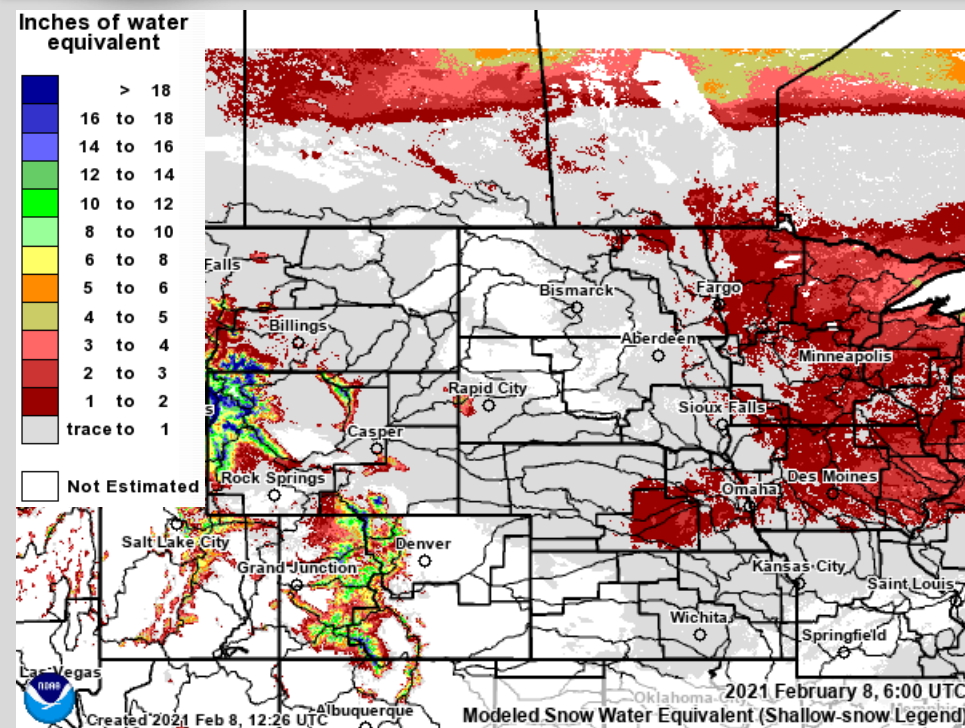
Valid 7 a.m. EST



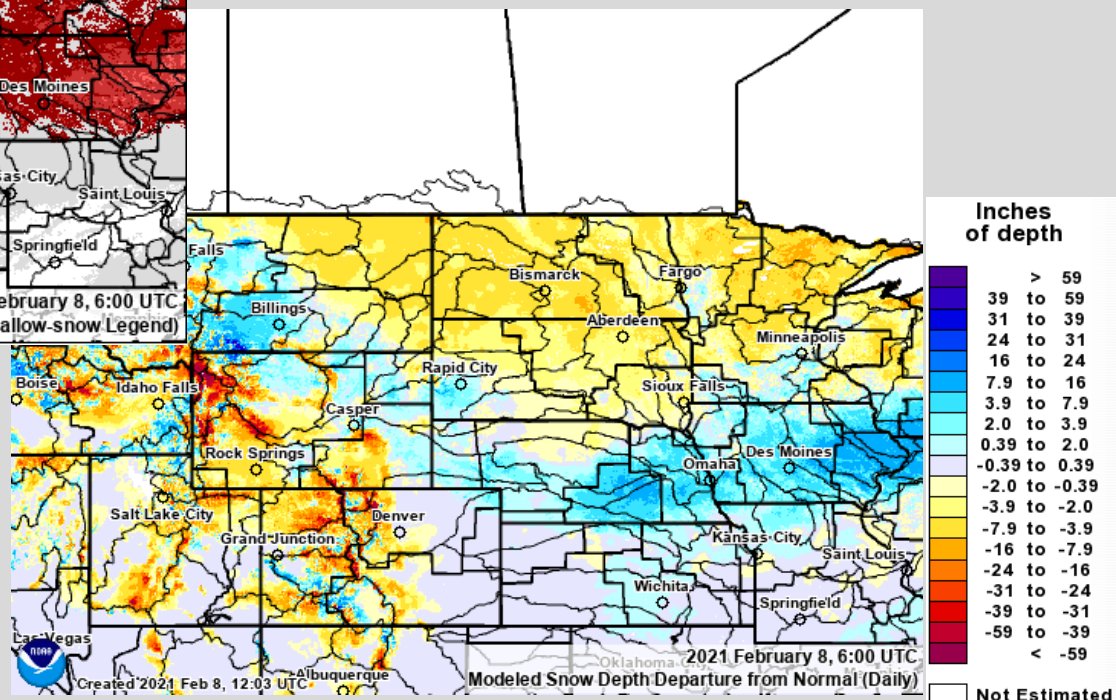
Snowpack

Water Equiv & Depth vs. Normal, 2/8

Snow Depth vs. Normal



Snow Water Equivalent



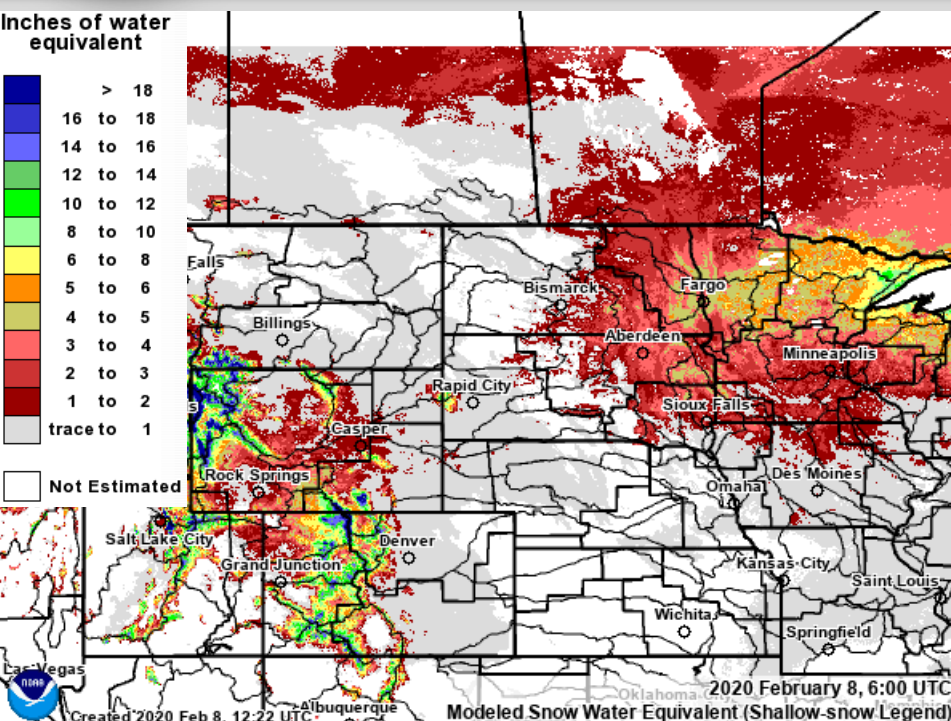


Snowpack

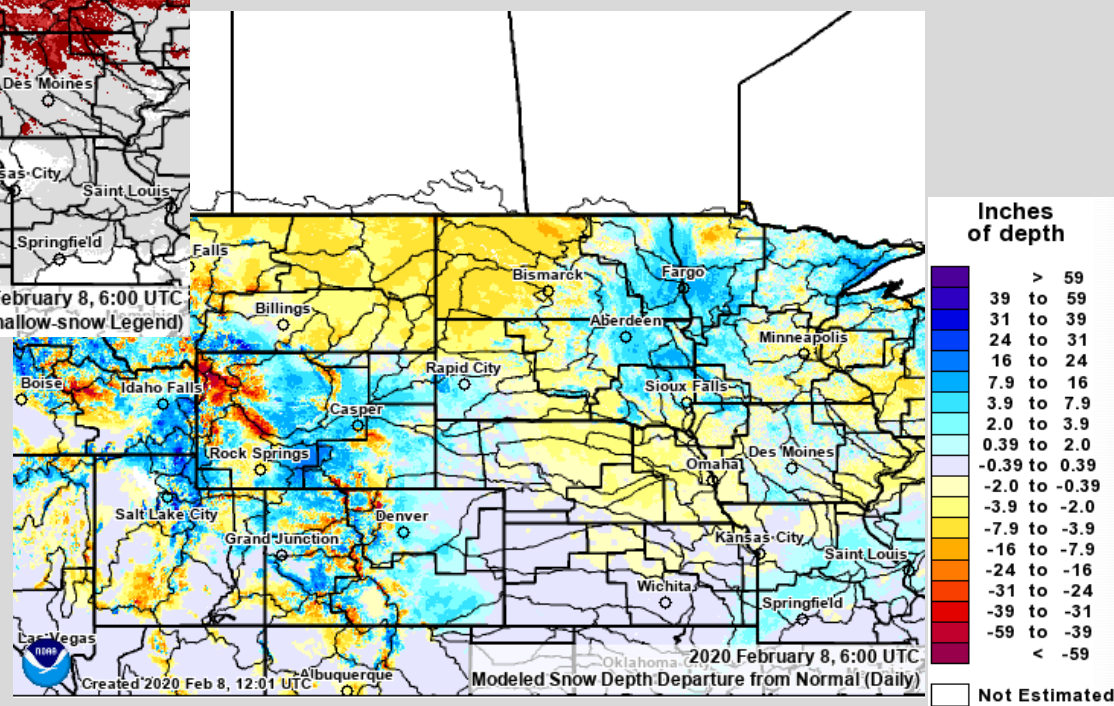


Water Equiv & Depth vs. Normal, 2/8/2020

Snow Depth vs. Normal



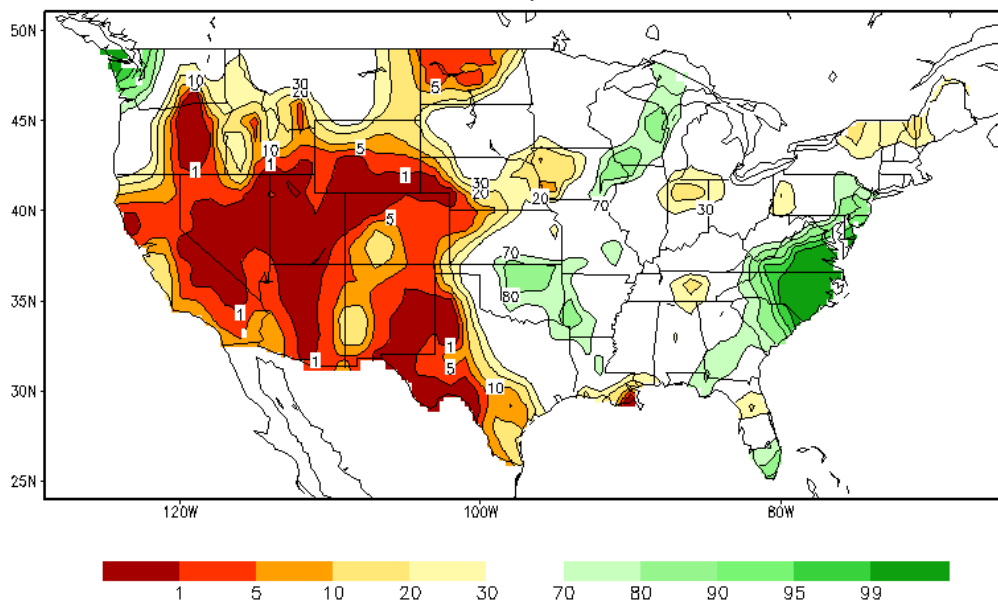
Snow Water Equivalent



Soil Moisture Percentile

Current Values & Change, 2/7

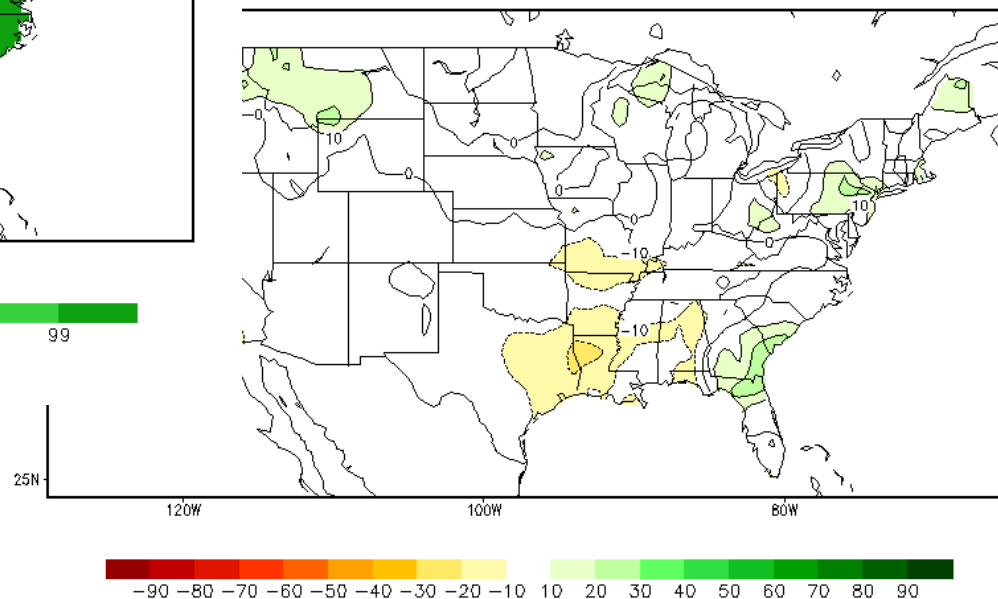
Calculated Soil Moisture Ranking Percentile
FEB 07, 2021



Current Percentiles

Change

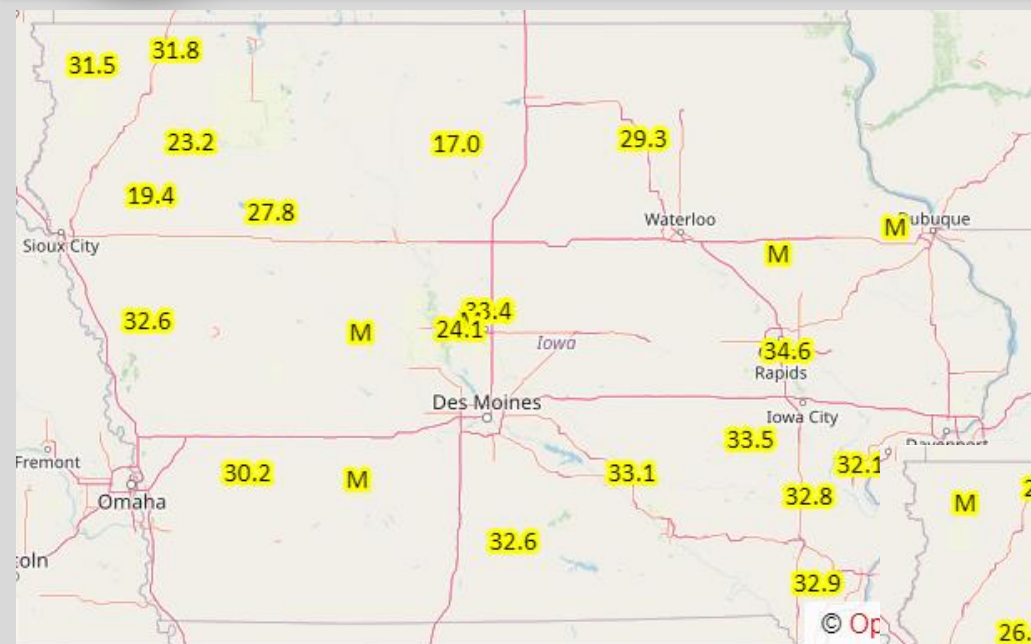
Calculated Soil Moisture Anomaly Change
FEB 07, 2021 from JAN.31





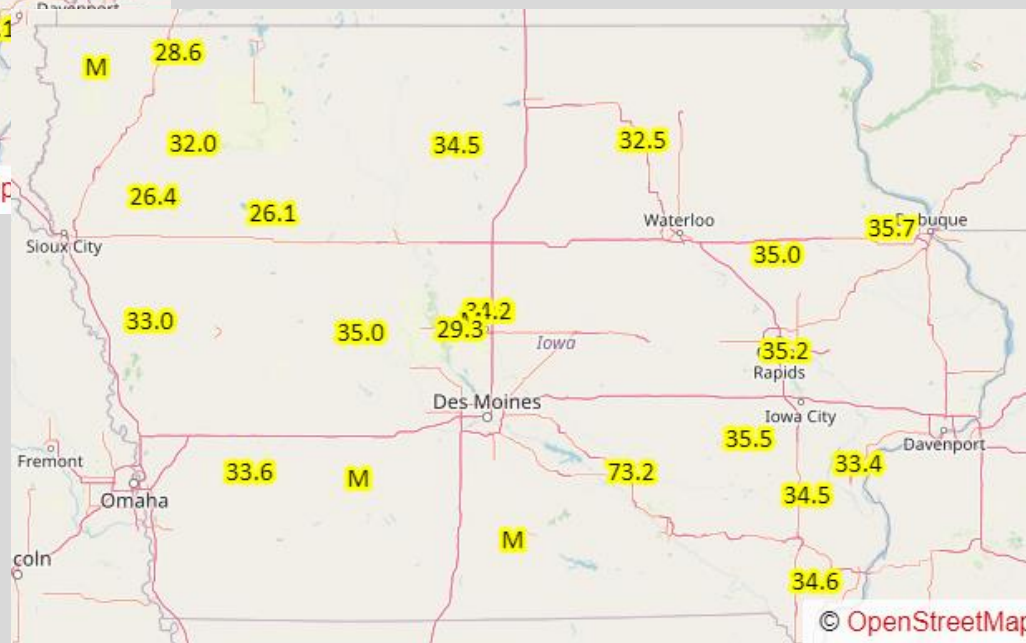
Soil Temperatures/Ground Frost

Temperatures in F, 2/8



4 inch Soil Temps

IOWA STATE
UNIVERSITY

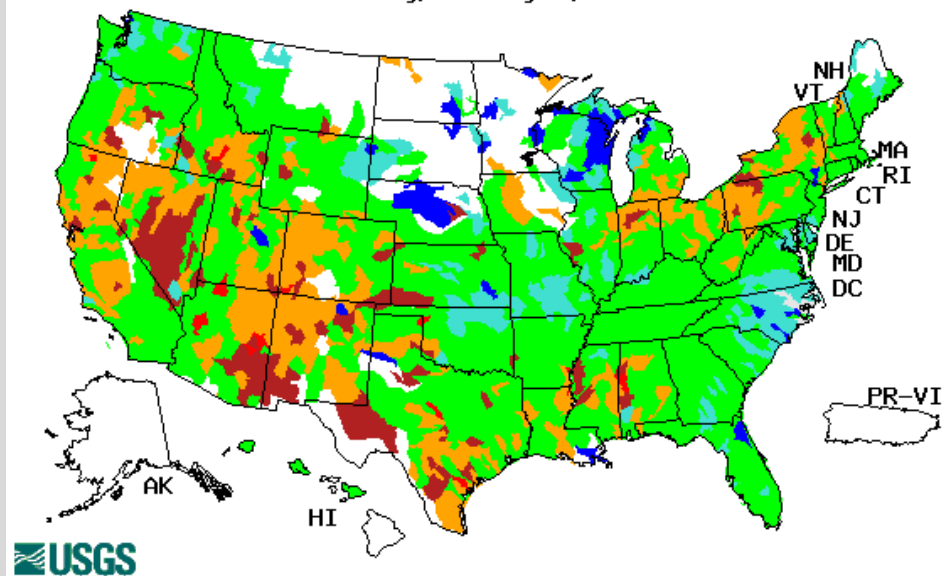


12 inch Soil Temps

Current Streamflow

Values vs. Normal (Percentiles), 2/8

Sunday, February 07, 2021

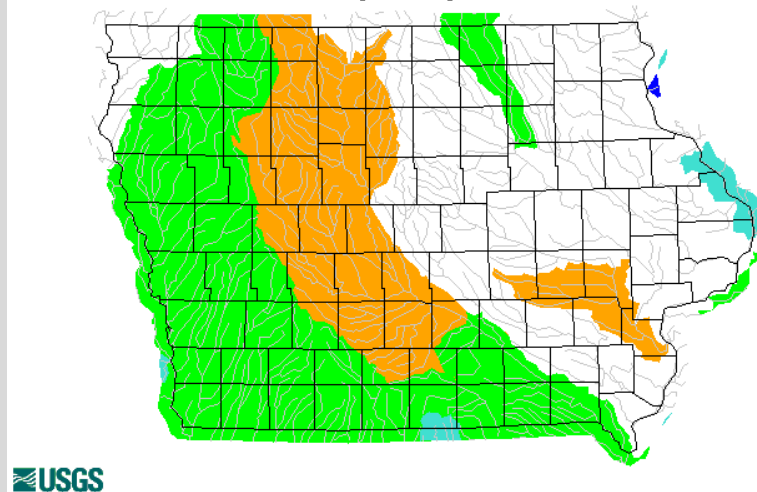


Explanation - Percentile classes

Low	<10	10-24	25-75	76-90	>90	High
	Much below normal	Below normal	Normal	Above normal	Much above normal	



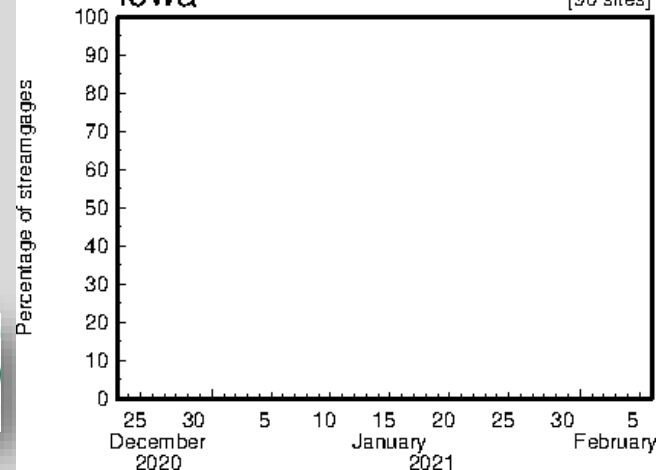
Sunday, February 07, 2021



Last 45 Days

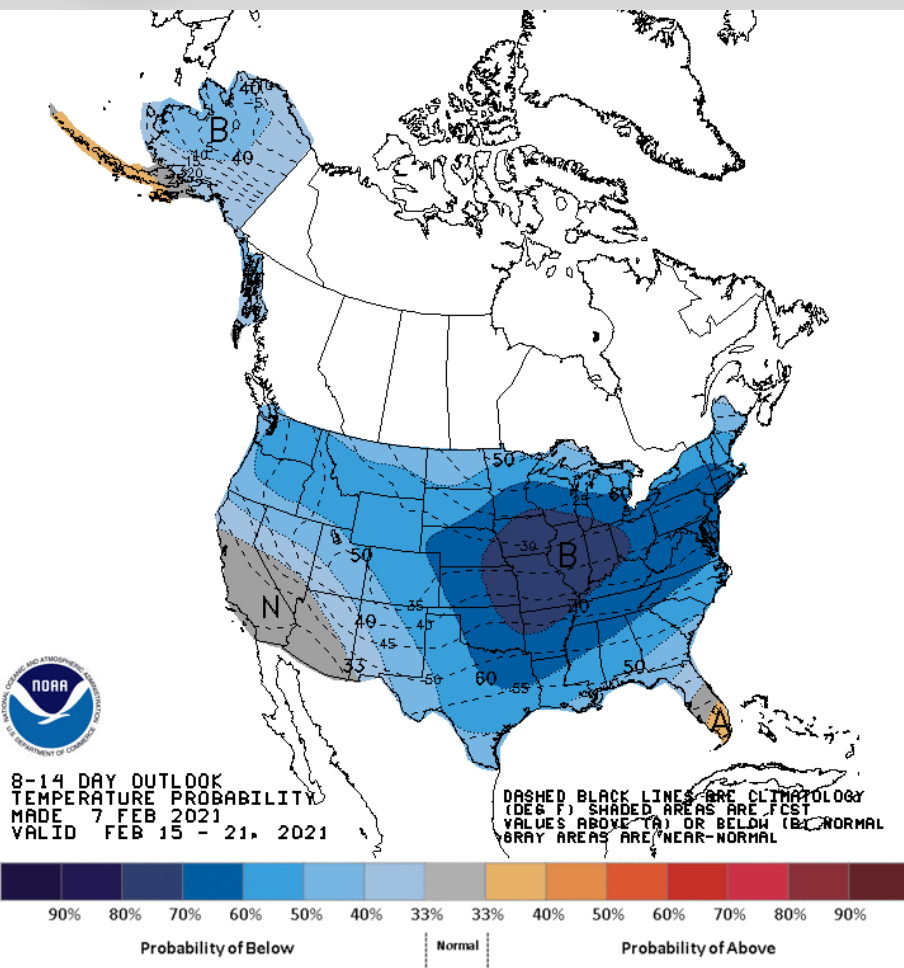
Iowa

[90 sites]

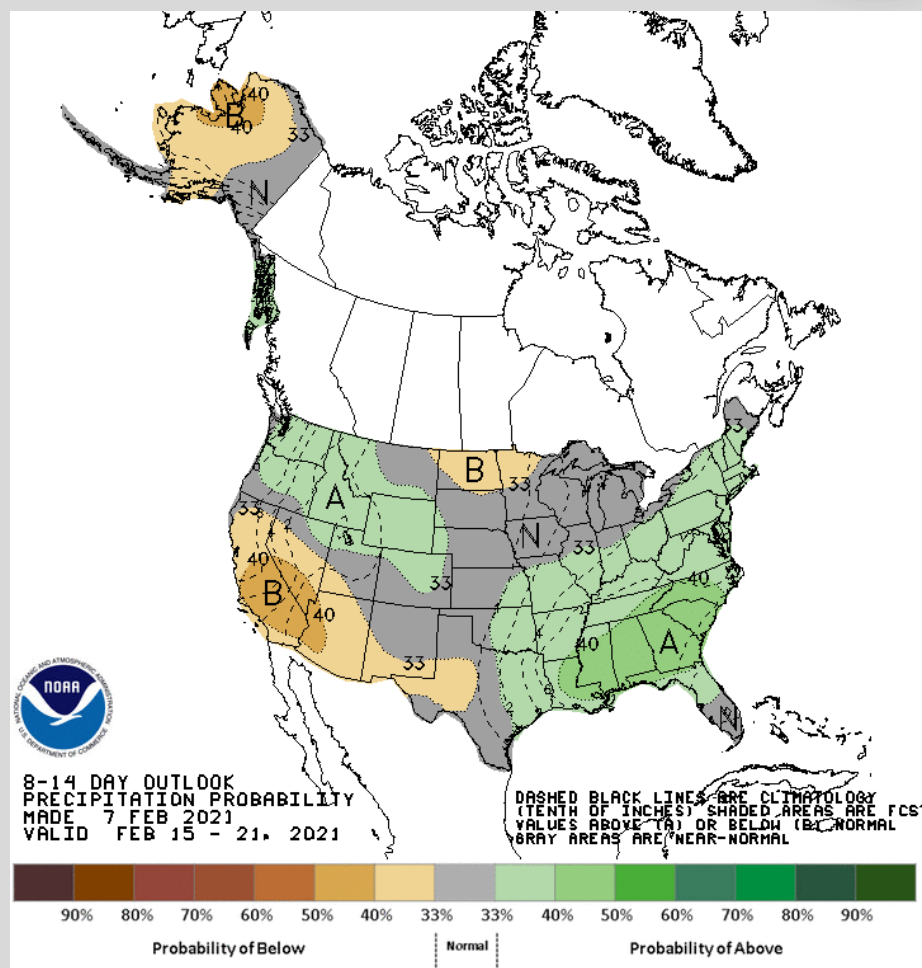




2-Week Temp/Precip Outlooks



Temperature

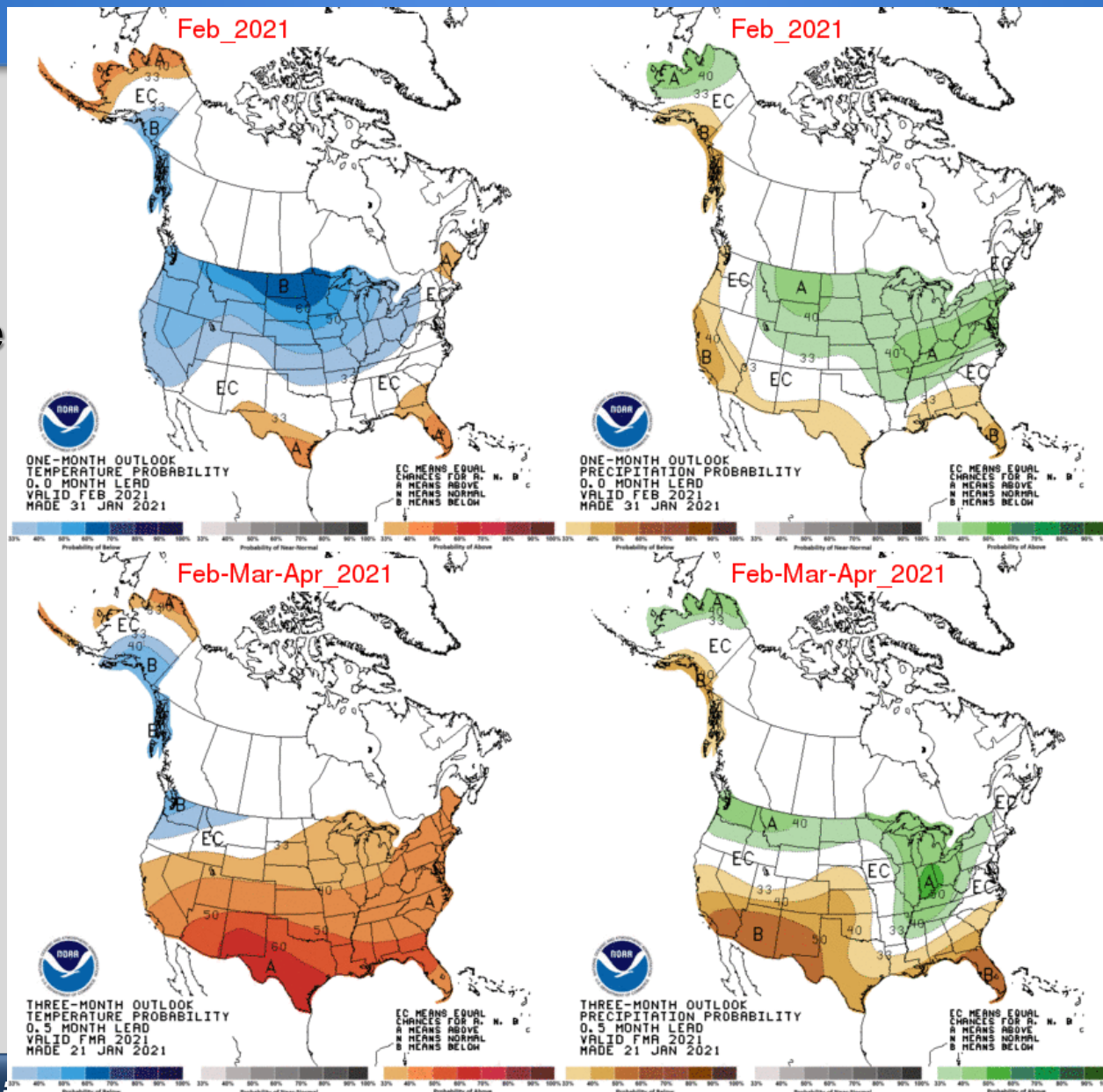


Precipitation

Temp/Precip Outlooks

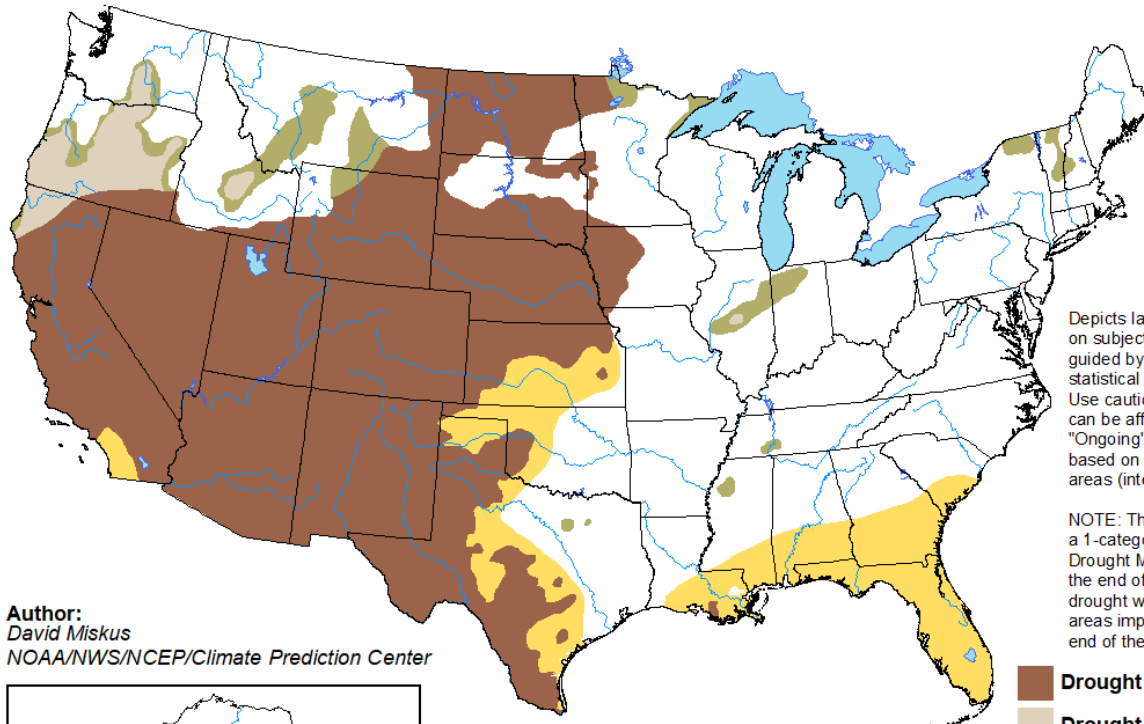
Temperature
on Left

Precipitation
on Right



U.S. Seasonal Drought Outlook Drought Tendency During the Valid Period

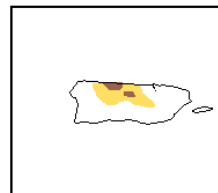
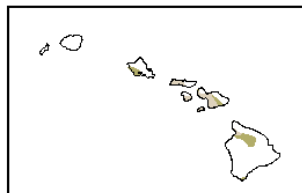
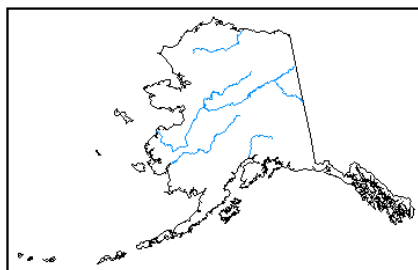
Valid for January 21 - April 30, 2021
Released January 21



Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Use caution for applications that can be affected by short lived events. "Ongoing" drought areas are based on the U.S. Drought Monitor areas (intensities of D1 to D4).

NOTE: The tan areas imply at least a 1-category improvement in the Drought Monitor intensity levels by the end of the period, although drought will remain. The green areas imply drought removal by the end of the period (D0 or none).

Author:
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NOAA/NWS/NCEP/Climate Prediction Center



- Drought persists
- Drought remains but improves
- Drought removal likely
- Drought development likely



<http://go.usa.gov/3eZ73>



Spring Flood Outlook Factors

As of 2/8



Factor	Contribution to Flood Risk
Snowpack	Increased Risk
Soil Moisture	Neutral
Frost Depth	Lowered Risk
Streamflow/Stream Levels	Neutral
Precipitation Outlook	Neutral to Increased Risk



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Thank You



➤ NWS Office Contacts

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